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Running Head: GOAL IMPORTANCE AND ACADEMIC PERFORMANCE

The role of goal importance in predicting university students' high academic performance

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Abstract

We examined goal importance, focusing on high, but not exclusive priority goals, in the theory of planned behaviour (TPB) to predict students' academic performance. At the beginning of semester, students in a psychology subject ($N = 197$) completed TPB and goal importance items for achieving a high grade. Regression analyses revealed partial support for the TPB. Perceived behavioural control, but not attitude or subjective norm, significantly predicted intention, with intention predicting final grade. Goal importance significantly predicted intention, but not final grade, indicating that perceiving a performance goal as highly, but not necessarily exclusively, important impacts on students' achievement intentions.

INTRODUCTION

Many studies have examined the variables associated with successful academic performance (e.g., Leone, Perugini, & Ercolani, 1999; Phillips, Abraham, & Bond, 2003). To date, there has been much evidence of the contribution of cognitive ability measures to academic performance, including Grade Point Average (GPA) and cognitive admissions tests (Hall & Bailey, 1992; Kulatunga-Moruzi & Norman, 2002; Stricker, Rock, & Burton, 1996). Other identified predictors of academic performance that do not rely on intelligence or ability have been examined also, such as achievement motivation (Dunham, 1973), self-efficacy (Bandura, 1986; Smith & Sinclair, 2005), achievement goals (Harackiewicz et al., 2002), personality (King, 2000), and attitudes (Manstead & van Eekelen, 1998; Sideridis, 2001). One well known decision making model that has facilitated an examination of the influence of some of these factors (e.g., attitudes, self-efficacy) on academic performance within a structured theoretical framework is the Theory of Planned Behaviour (Ajzen & Madden, 1986; Sideridis & Kaissidis-Rodafinos, 2001).

The Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) proposes that intention is the most proximal determinant of behavioural outcomes, with attitudes, subjective norms and perceived behavioural control proposed to predict intention (Ajzen, 1991). Attitudes reflect an individual's positive or negative evaluation of a particular behaviour. Subjective norm refers to the perceived social pressure from important others to perform or not perform a behaviour. Perceived behavioural control refers to the extent to which an individual perceives a behaviour as easy or difficult to perform, taking into account their personal resources (abilities, skills, and knowledge) and situational variables (obstacles and opportunities) (Ajzen & Madden, 1986). Perceived behavioural control is also considered to have a direct impact on behaviour, especially when an individual's volitional control is low (Armitage & Conner, 2001). As part of the TPB model, the constructs of attitudes, subjective norms and perceived behavioural control are thought to be belief-based. The TPB has been used successfully by many researchers to predict a variety of behaviours, including academic behaviours (e.g., Manstead & van Eekelen, 1998; Sideridis, Kaissidis-Rodafinos, & Paleliadu, 1998; White et al., 2008). A meta-analysis of 185 tests of the TPB provided significant support for the model (Armitage & Conner, 2001), with the standard TPB predictors accounting for 39% of the variance in intention and 27% of the variance in behaviour (with a further 2% of variance attributable to perceived behavioural control).

Although the model has been shown to account for a considerable proportion of variance in people's intentions and behaviour, there is still a proportion of variance that is unaccounted for. Ajzen (1991) has stated

that the TPB is, in principle, open to the inclusion of additional predictors as long as there is a strong theoretical justification for their inclusion and they capture a significant portion of unique variance in intentions or behaviour. One criticism of the TPB is that the model fails to account for motivational factors which induce an individual to form an intention to act (Perugini & Bagozzi, 2004a; Sideridis, 2005). In other words, even if an individual has a positive attitude toward performing a behaviour, perceives social pressure to perform that behaviour and believes the behaviour is easily performed, it does not mean that the behaviour is important to the individual (Orbell et al., 2001). Consequently, it has been argued that the TPB describes a reasoned decision making process and assumes that these motivational processes are inherent in the determinants of intention, rather than providing an explicit assessment of the motivational factors that may energise intentions (Bagozzi, 1992; Perugini & Bagozzi, 2004a). Constructs thought to reflect these motivational determinants include, but are not limited to, vested interest (e.g., Ajzen, 1988), self-identity (e.g., Sparks & Shepherd, 1992), commitment (e.g., Klein & Wright, 1994), behavioural desire (e.g., Perugini & Bagozzi, 2004b), goal desirability, and goal perceived feasibility (e.g., Perugini & Conner, 2000). In relation to the latter three constructs, although not the focus of the current paper, two recent models of goal-directed behaviour (MGB; Perugini & Bagozzi, 2001) and its extension, the extended model of goal-directed behaviour (EMGB; Perugini & Conner, 2000; Perugini & Bagozzi, 2004a, 2004b) both suggest the inclusion of a motivational goal component (desire) as a mediator of the effects of attitude, subjective norm, and perceived behavioural control on intentions. More recently, Prestwich, Perugini, and Hurling (2008) have suggested also that people's goals and intentions may operate simultaneously to influence their behaviour. Importantly, Abraham and Sheeran (2003) argued that the TPB could be enhanced by a consideration of the constructs informing goal theories.

Goal Importance and the Theory of Planned Behaviour

One concept previously identified as a key aspect of goal theory is goal importance, a personal assessment of the perceived importance of achieving a particular goal (see Austin & Vancouver, 1996; Hollenbeck & Williams, 1987; Sideridis, 2001). This concept accounts for the fact that individuals have multiple goals, often hierarchically organised, that may come into conflict with each other depending upon contextual or situational factors (Abraham & Sheeran, 2003). An assessment of goal importance also implies that not all goals are considered to be of equal importance or salience (Abraham & Sheeran, 2003; Ryan et al., 1996). In recognition of the potential contribution of goal importance as a motivational determinant, Sideridis and colleagues (Sideridis, 2001, 2002; Sideridis & Kaissidis-Rodafinos, 2001) proposed the inclusion of goal importance to improve the predictive validity of the TPB applied to the prediction of study behaviour. They

hypothesised that goal importance influences all other independent variables predicting intention and behaviour and assumed that, as a goal becomes more important, the link between the goal and subsequent performance becomes stronger (Sideridis & Kaissidis-Rodafinos, 2001). Across several studies, Sideridis and colleagues (Sideridis, 2001; Sideridis & Kaissidis-Rodafinos, 2001) have found support for the inclusion of goal importance in the model as a direct predictor of both intention to study and actual study behaviour.

In summarising the findings of their goal importance studies, Sideridis and colleagues (Sideridis, 2001; Sideridis & Kaissidis-Rodafinos, 2001) noted several limitations. The main limitation related to the behaviour of interest in their studies as student study behaviour served as a proxy for academic performance. Study behaviour is only one factor contributing to student performance, which may be influenced also by the quality of the study, attendance at lectures and tutorials, and personal interest in the course. Furthermore, the assessment of behaviour was reliant on a self-report measure of study behaviour. The most direct and objective measure of student performance would be the final grade achieved in a subject or overall GPA. In addition to the limitations associated with the behavioural measure, we propose a further limitation evident in their measurement of the construct of goal importance.

Sideridis and colleagues (Sideridis, 2001, 2002, 2005; Sideridis & Kaissidis-Rodafinos, 2001) base their conceptualisation of goal importance on previous research (Hollenbeck & Williams, 1987; Powers, 1978) stating, first, that goal importance reflects the importance of one set of goals relative to another set of goals and second, that an increased degree of importance attributed to specific goals will impact positively on task performance. They define goal importance as: “the weight that an individual assigns toward achieving a goal. In lay terms, this weight is ascertained by seeking an answer to the question of how far one would go in order to achieve a certain goal” (Sideridis, 2002, p. 344). To operationalise the construct of goal importance, Sideridis and colleagues (e.g., Sideridis, 2001, 2002; Sideridis & Kaissidis-Rodafinos, 2001) use three items: “The highest priority for me right now is to study hard in order to achieve a high GPA”; “For me to study hard in order to achieve a high GPA is extremely crucial”; and “I have more important things to do than to study hard in order to achieve a high GPA” (Sideridis; Sideridis & Kaissidis-Rodafinos). These items are rated from strongly disagree to strongly agree.

While the third item reflects a consideration of a conflict between goals inherent in the concept of goal importance, we argue that the remaining items used to measure goal importance do not account for the degree of importance or weighting assigned to a particular goal. By asking an individual to *strongly agree* or *strongly disagree* that the “highest priority” for them is to study hard or that studying hard is “extremely crucial” does not

allow an assessment of the weighting or importance of the goal of studying hard. Instead, it may be more beneficial to ask an individual to rate *how* important the goal of studying hard is to them on a scale. Furthermore, these items do not acknowledge that an individual may perceive many of their goals as important, rather than having one goal exclusively as the most important. Asking individuals to rate whether or not they agree that studying hard is their “*highest priority*” or is “*extremely crucial*” as measures of goal importance may have induced students to respond negatively if studying is not their “*highest priority*” or “*extremely crucial*”, even though it may still be important to them. In other words, studying may be *one* of their important goals, although another goal (such as being in good health and/or having satisfying relationships) may be their *highest* priority (see also Shah and colleagues’ work on goal conflict and goal shielding; e.g., Shah, Friedman, & Kruglanski, 2002). Finally, the goal importance items used in Sideridis and colleagues’ work have demonstrated only low to moderate internal consistency (e.g., $r = .20, .37$ and $.42$; Sideridis & Kaissidis-Rodafinos, 2001).

The Present Study

The first aim of the present study was to assess the utility of the TPB in the prediction of university students’ academic performance. The second aim was to examine the role of goal importance, within the TPB, as a predictor of students’ intention to perform at a high academic level and their academic performance. In an effort to address the potential limitations of the previous TPB goal importance research, we examined a target academic performance behaviour comprising an objective outcome measure (i.e., final grade) and tested a revised measure of goal importance designed to reflect better the perceived weighting or importance of a goal and the acknowledgement that a goal may be important to an individual, but not necessarily serve as the most highly prioritised goal. This change in wording for the goal importance items should reflect more closely the intended construct, producing stronger validity for the measure and may result in greater internal consistency among the items. In our test of an extended TPB incorporating a revised measure of goal importance, the target behaviour was academic performance characterised as the goal of achieving a 6 or 7 (a high grade) in a first year psychology subject.

Hypotheses

In relation to the specifications of the theory of planned behaviour model, we hypothesised the following:

Hypothesis 1: Intention to achieve a high final grade in a first year university psychology subject would be influenced by students’ attitudes, subjective norms, and perceived behavioural control.

Hypothesis 2: Intention to achieve a high final grade in a first year university psychology subject and

perceived behavioural control would predict students' final grade.

In relation to the inclusion of goal importance in the TPB, based on previous research (e.g., Sideridis 2001), we hypothesised the following:

Hypothesis 3: The more students considered achieving a high grade as an important goal, the stronger their intentions to achieve a high grade in a first year university psychology subject.

Hypothesis 4: The more students considered achieving a high grade as an important goal, the higher their final grade in a first year university psychology subject.

METHOD

Participants and Procedure

Participants were 197 students enrolled in a first year psychology subject at a major Brisbane university, who participated to obtain partial course credit. The sample was comprised of 65 males and 132 females. The mean age of participants was 22.38 years ($SD = 7.4$ years; range = 16 to 62 years). Ethical approval was obtained from the university research ethics committee to conduct the present study. The study used a prospective design. The purpose of the questionnaire was explained and students were informed that their involvement was voluntary and that all responses were confidential. Participants completed a questionnaire assessing the TPB variables and goal importance as they related to the behaviour of achieving a high grade for their psychology subject. Questionnaires were completed during class time or students had the opportunity to return the questionnaire to a locked return box. Participants gave permission for their final grade to be accessed, in a de-identified manner, by the research team. We used a participant-generated code and detachable sections of the questionnaire to maintain anonymity in the matching of responses, student numbers, and final grades.

Measures

Target Behaviour

The target behaviour was high academic performance. High academic performance was operationalised as achieving a grade of 6 or 7 for the first year psychology subject in the current semester. According to the university's grading system, a 7 is the highest grade that can be obtained, on a 7-point scale. A grade of 7 corresponds to a high distinction, 6 is a distinction, 5 is a credit, 4 corresponds to a pass, 3 is a low pass, 2 is a fail and 1 corresponds to a low fail. A grade of 6 or 7 was chosen as representing high academic performance as, based on previous student performance records, only about one-fifth to one-quarter of students in the subject are likely to achieve a grade of 6 or 7. To maximise congruence between the prediction and criterion variables, the

variables were measured at the same level of specificity in terms of context, action and time (Ajzen & Fishbein, 1970).

Measures

The standard TPB items of attitude, subjective norm, perceived behavioural control, intentions and behaviour were constructed based on guidelines specified by Ajzen (1991). Items were scored on 7-point Likert scales, except for attitude, which was scored on a series of 7-point semantic differential scales. To reduce the effects of response bias, approximately half of the items for each measure were negatively worded (and subsequently reversed so that all items were in a similar, positive direction for the creation of scales). Table 1 includes the means, standard deviations, and the Cronbach's (1951) alpha coefficients for each of the study's variables.

Intention. Three items assessed the strength of the participant's intention to perform the behaviour. The three items were: "I intend to achieve a grade of 6 or 7 for [first year psychology subject]", 1 (*strongly disagree*) to 7 (*strongly agree*); "I 1 (*do intend*) to 7 (*do not intend*) to achieve an overall grade of 6 or 7 for [first year psychology subject]"; "It is likely that I will achieve a grade of 6 or 7 for [first year psychology subject]", 1 (*strongly disagree*) to 7 (*strongly agree*). The measure of intention was found to be reliable, with an alpha coefficient of .85.

Attitudes. Attitude towards achieving a grade of 6 or 7 was obtained using four items. The four items were "I believe that achieving an overall grade of 6 or 7 for [first year psychology subject] would be: 1 (*unpleasant*) to 7 (*pleasant*); 1 (*good*) to 7 (*bad*); 1 (*negative*) to 7 (*positive*); 1 (*favourable*) to 7 (*unfavourable*)". The direct attitude measure was reliable, with an alpha coefficient of .87.

Subjective norms. The measure of subjective norms was obtained through three items. The three items were: "Most people who are important to me would approve of me achieving a grade of 6 or 7", 1 (*strongly disagree*) to 7 (*strongly agree*); "If I were to achieve an overall grade of 6 or 7 for [first year psychology subject], the people who are important to me would 1 (*approve*) to 7 (*disapprove*)"; Those people who are important to me would want me to achieve a grade of 6 or 7 in [first year psychology subject]", 1 (*strongly disagree*) to 7 (*strongly agree*). The direct measure of subjective norms was found to be reliable with an alpha coefficient of .70.

Perceived behavioural control. Four items assessed perceived behavioural control: "I have complete control over whether I achieve a grade of 6 or 7 for [first year psychology subject]"; I am confident that I could achieve a grade of 6 or 7 in [first year psychology subject]"; "There are numerous events outside of my control

which could prevent me from achieving a grade of 6 or 7 in [first year psychology subject]”; “It would be difficult for me to achieve a grade of 6 or 7 for [first year psychology subject]”, all scored 1 (*strongly disagree*) to 7 (*strongly agree*). The perceived behavioural control items were reliable, with an alpha coefficient of .72.

Goal importance. Goal importance refers to the personal assessment of the degree of importance of attaining a performance goal (Hollenbeck & Williams, 1987; Sideridis & Kaissidis-Rodafinos, 2001).

Previously, goal importance items represented an evaluation of the highest goal priority (e.g., “The highest priority for me right now is to study hard in order to achieve a high GPA” and “For me to study hard in order to achieve a high GPA is extremely crucial”; Sideridis 2001). We modified these goal importance items so that they represented goals having importance to the individual, but not necessarily serving as the most highly prioritised goal. These revised goal importance items were: (1) “How important do you feel it would be for you to achieve a grade of 6 or 7 for [first year psychology subject]?”; 1 (*very important*) to 7 (*very unimportant*); (2) “One of my highest priorities is to achieve a grade of 6 or 7 for [first year psychology subject]”; 1 (*strongly disagree*) to 7 (*strongly agree*); and (3) “It is crucial for me to achieve a grade of 6 or 7 for [first year psychology subject]”; 1 (*strongly disagree*) to 7 (*strongly agree*). The revised measure of goal importance was found to be reliable, with an alpha coefficient of .83. The inter-correlations between the goal importance items revealed moderate to high correlations between items 1 and 2, $r(196) = .62, p < .001$, between items 2 and 3, $r(196) = .70, p < .001$, and between items 1 and 3, $r(196) = .56, p < .001$.

Final Grade

At the conclusion of the academic semester, the research team obtained each participant’s final grade for the subject in a de-identified manner from the subject coordinator. The final grades ranged from 1 (*low fail*) to 7 (*high distinction*). Given the dichotomous nature of the criterion variable (i.e., those who achieved a grade of 6 or 7 and those who did not), each grade was recoded such that a code of 0 represented a *grade of 1 through 5*, and a code of 1 represented *grades of 6 or 7* (high academic performance).

Results

Descriptive Analysis of High Academic Performance

Thirty-one percent of students in the sample received a final grade of 6 or 7 for the psychology subject with the remainder (69%) receiving a grade of 1 through 5. The average grade was 5.07 ($SD = 1.03$). The correlations between the TPB variables, goal importance, and grade are reported in Table 1. The TPB predictors were significantly and moderately correlated with behavioural intention. The TPB predictors, except for subjective norm, were also significantly correlated with behaviour, with intention emerging as the strongest

correlate. Inspection of the correlation matrix revealed low to moderate correlations between goal importance and the TPB variables of attitudes, subjective norms and perceived behavioural control. In relation to the TPB criterion variables, there was a moderate and significant correlation between goal importance and intention, and a low, but significant correlation between goal importance and final grade.

Insert table 1 here

Analysis Predicting Behavioural Intentions

A hierarchical regression was performed to examine the role of the revised goal importance measure within the TPB model on intention to achieve a high grade. The TPB variables of attitude, subjective norm and perceived behavioural control were entered in step 1, followed by goal importance in step 2 to examine its effect on intention after controlling for the TPB variables. The linear combination of the TPB predictors accounted for 36.8% (35.9% adjusted) of the variance in intention, $F(3,192) = 37.34, p < .001$ (see Table 2). Entry of goal importance significantly improved prediction of intention to achieve high grades, $F(1,191) = 88.05, p < .001$. In the final step of the analysis, perceived behavioural control and goal importance contributed significantly to the prediction of intentions to achieve a high grade. Thus, individuals who had a greater perception of control over achieving a high grade and who placed importance on the goal of achieving a high grade were more likely to intend to achieve a grade of 6 or 7.

Insert table 2 here

Analysis Predicting High Academic Performance

A logistic regression was conducted examining intention and perceived behavioural control (step 1) and attitude, subjective norm and goal importance (step 2) in the prediction of high academic performance (see Table 3). A test of the full model with all predictors against the constant-only model was statistically significant, $\chi^2(5, N = 193) = 44.45, p < .001$, explaining approximately 29% of the variance in classification of high grade achievers and lower grade achievers (Nagelkerke $R^2 = .29$). Results demonstrated that, after all variables were entered, intention was the only significant predictor of high academic performance.

Insert table 3 here

DISCUSSION

The aims of the present research were twofold. The first aim was to assess the utility of the Theory of Planned Behaviour (TPB) in the prediction of academic performance. The results of the study provided partial support for the TPB, given that perceived behavioural control predicted intentions and intention predicted behaviour (Hypothesis 1). However, neither attitude nor subjective norm predicted intention and perceived behavioural control did not emerge as a significant predictor of behaviour (Hypothesis 2). The second aim was to examine the role of a revised measure of goal importance, reflecting high importance, but not absolute priority, within the TPB as a predictor of students' intentions and academic performance. In the present study, the revised measure of goal importance was supported in the prediction of intention (Hypothesis 3), but not behaviour (Hypothesis 4).

The absence of significant findings for attitude and subjective norm in predicting intentions is likely to be related to the high mean value (and limited variability) for both constructs. Most university students feel favourably about achieving high grades and feel pressure from others to achieve. Thus, variability in students' intention to achieve high grades is likely to be more influenced by their perceptions of control over the behaviour. The absence of a finding for subjective norm concurs with the Armitage and Conner's (2001) meta-analysis which reported low predictive validity for the subjective norm component of the TPB model. An alternative representation of social influence in the TPB, such as the influence of peer group norms, may be more beneficial in this context (see e.g. Terry & Hogg, 1996; White, Terry, & Hogg, 1994).

For the prediction of academic performance, intention emerged as the only significant predictor. Perceived behavioural control was not a significant predictor of performance, a finding that is inconsistent with, but not uncommon in the TPB. This finding suggests that perceived behavioural control may not have served as a proxy measure of actual control given the myriad of other influences that can impact upon final grade performance, such as inherent cognitive abilities (e.g., Kulatunga-Moruzi & Norman, 2002). In addition, given that many of the students who participated in the study were in the preliminary stages of their degrees and that it was an introductory psychology subject, they may have had little insight as to their aptitude for psychology. Consequently, participants may have had inaccurate perceptions of their level of control over performing well in the subject. In accordance with Bandura's (1977) contention that self-efficacy (akin to perceived control) increases with task exposure, it may be that participants develop more accurate estimates of their task mastery (and their likely performance), the longer their course tenure.

The present research lends partial support to the role of goal importance in the TPB in the prediction of academic performance. In congruence with the findings of Sideridis and colleagues (Sideridis, 2001, 2002; Sideridis & Kaissidis-Rodafinos, 2001), goal importance significantly predicted intention to achieve a high grade, accounting for an additional 20% of the variance. The emergence of goal importance as a significant predictor indicates that the degree of importance an individual places on goal attainment contributes to intention formation. In contrast to previous research (Prestwich et al., 2008; Sideridis, 2001; Sideridis & Kaissidis-Rodafinos, 2001), however, goal importance did not contribute significantly to behavioural performance. As in the case of perceived behavioural control, this finding may reflect that other influences are impacting on the behaviour (e.g., cognitive abilities). In addition, previous research undertaken by Sideridis and colleagues predicting academic behaviours have used a proxy measure of performance (e.g., study behaviour), which may have inflated the relationship between goal importance and behaviour given the larger degree of control an individual may have over their study practices than their final grade.

The goal importance scale used in the current study possessed good reliability and the items were moderately inter-correlated, providing support for the proposed revised measure. Notably, the items in the revised measure reflected an assessment of the importance of a goal, without requiring that the goal have highest priority. This approach accommodates the presence of other important goals and reflects the literature suggesting that the importance of a goal is assessed in relation to other existing goals (Powers, 1978; Shah et al., 2002) so that respondents do not need to identify only one important goal when reflecting on their decision-making. Future research should continue to examine the original and revised goal importance items and potentially extend the measurement of these items to incorporate multiple goals or a goal hierarchy in academic (and other contexts) in an effort to create a measure that most accurately reflects the construct.

The findings regarding the TPB and the role of goal importance in the present study have applied implications. As perceived behavioural control and goal importance had significant effects on intention to achieve a high grade, these factors should be targeted in academic-assistance programs offered within and outside universities. Encouraging students to aim for high grades should involve a consideration of the extent to which obtaining high grades is within their control. An increase in a student's self-perception that they are able to succeed academically may lead to a stronger intention to obtain high grades. Moreover, to strengthen intentions to obtain high grades, individuals should be encouraged to place a high level of importance on the goal of successful academic performance in their university subjects.

Sampling limitations of the present research are noted, including the use of a convenience sample of participants studying psychology subjects only, the use of majority female participants and a younger sample of participants. In relation to future studies, it is recommended that further research examine the role of goal importance within the TPB with a wider range of students represented in the sample, including students across different faculties. Future research examining goal importance should confirm the utility of this study's revised goal importance measure within other behavioural contexts and undertake item refinement as needed.

Overall, the present research found partial support for the TPB predictors in that perceived behavioural control predicted intention, and intention predicted behaviour. However, there was no support for attitudes and subjective norms in the prediction of intention, nor for perceived behavioural control in the prediction of behavioural performance. The current study also provided further evidence for the addition of goal importance to the TPB as a predictor of intention, using a revised measure of goal importance to reflect accurately the construct of goal importance, rather than goal-exclusive priority. The findings of the present study suggest that a representation of how important a goal is, amongst the competing goals in one's life, may assist in understanding the prediction of high academic performance. Future research should examine the application of goal importance in other related behaviours designed to maximise the learning environment for university students, such as class attendance and study behaviours.

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Table 1

Means, Standard Deviations, Correlations and Alpha Coefficients for TPB Variables, Subject Grade and Goal Importance

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Attitude	6.61	0.78	[.87]	0.47***	0.17*	0.25***	0.27***	0.19**
2. Subjective norm	5.99	0.92		[.70]	0.22**	0.27***	0.33***	0.13
3. Perceived behavioural control	4.34	1.16			[.72]	0.58***	0.37***	0.33***
4. Intention	4.75	1.35				[.85]	0.66***	0.42***
5. Goal importance	4.12	1.45					[.83]	0.21**
6. Final grade ^a	-	-						[-]

* $p < .05$, ** $p < .01$, *** $p < .001$

^a please note that Final grade was a dichotomous variable

Table 2

Hierarchical Multiple Regression Analyses Predicting Intention

Variable	B	β	R^2	$R^2 \text{ Ch}$
1. Attitude	.08	.05	.37	.37***
Subjective norm	-.01	.00		
Perceived behavioural control	.45	.39***		
2. Goal importance	.47	.50***	.57	.20***

* $p < .05$, ** $p < .01$, *** $p < .001$

N.B. Weights provided are those for the final step in the analyses.

Table 3

Logistic Regression Analyses Predicting High Academic Performance

Variable	B	SE	Wald	Exp (B)	95% CI Exp (B)	
					Lower	Upper
1. Intention	.81	.22	13.07***	2.24	1.45	3.46
Perceived behavioural control	.31	.20	2.44	1.36	.93	2.00
2. Attitude	.61	.38	2.53	1.83	.87	3.87
Subjective norm	-.15	.23	.39	.86	.55	1.37
Goal importance	-.21	.16	1.58	.81	.59	1.12
Model Chi-square	44.45 ($df = 5$), $p < .001$					

*** $p < .001$